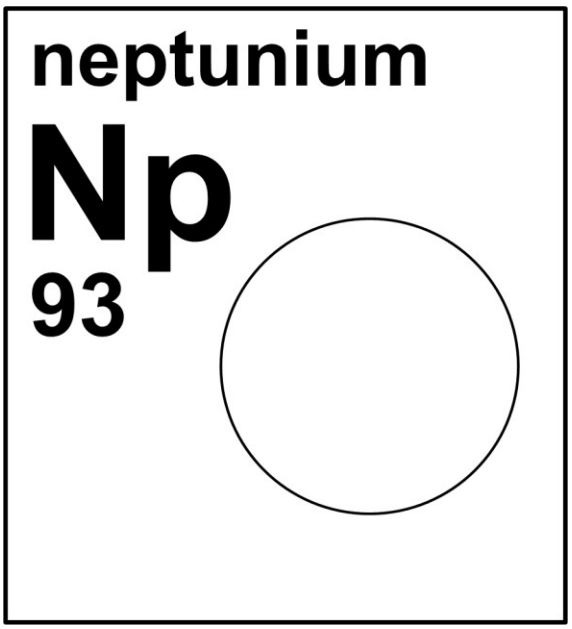
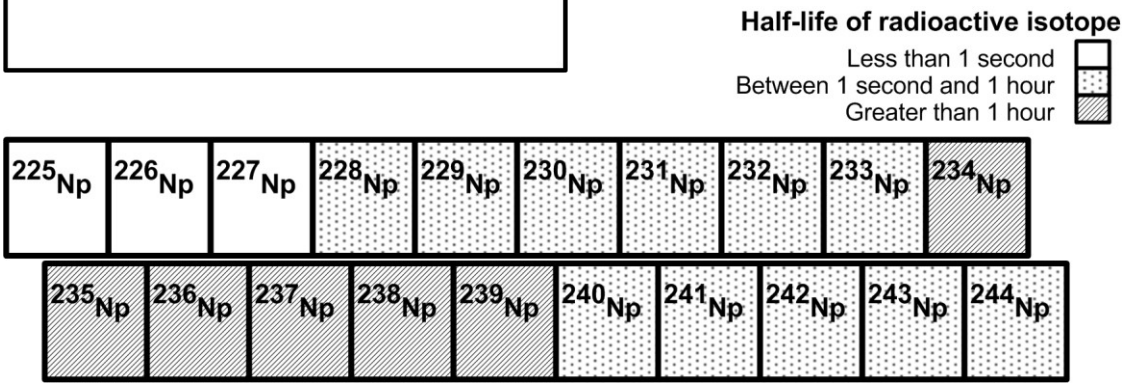
neptunium



Stable isotope	Atomic mass	Mole fraction
(none)		



Important applications of stable and/or radioactive isotopes

Isotopes in nuclear physics

1) ^{237}Neptunium is used in the production of ^{238}Pu, which is an alpha emitter used in thermoelectric generators and radioisotope heater units. The ^{237}Np captures a nucleus $^{237}Np + ^{1}n \rightarrow ^{238}Np \rightarrow ^{238}Pu$. The ^{238}Np nucleus undergoes beta-minus decay to ^{238}Pu, with a half-life of 2.117 days.
2) ^{237}Neptunium is fissionable and can be used in fast neutron reactors or in nuclear weapons.